

City of Fulshear

Water & Wastewater Master Plan Update





Water & Wastewater Master Plan Update | September 21, 2021





WATER CAPITAL IMPROVEMENTS PLAN

LEGEND




2026 Proposed Improvements

-  Water Plant
-  Pump Station
-  Ground Storage Tank
-  Elevated Storage Tank



2031 Proposed Improvements

-  Ground Storage Tank
-  Water Line














2041 Proposed Improvements

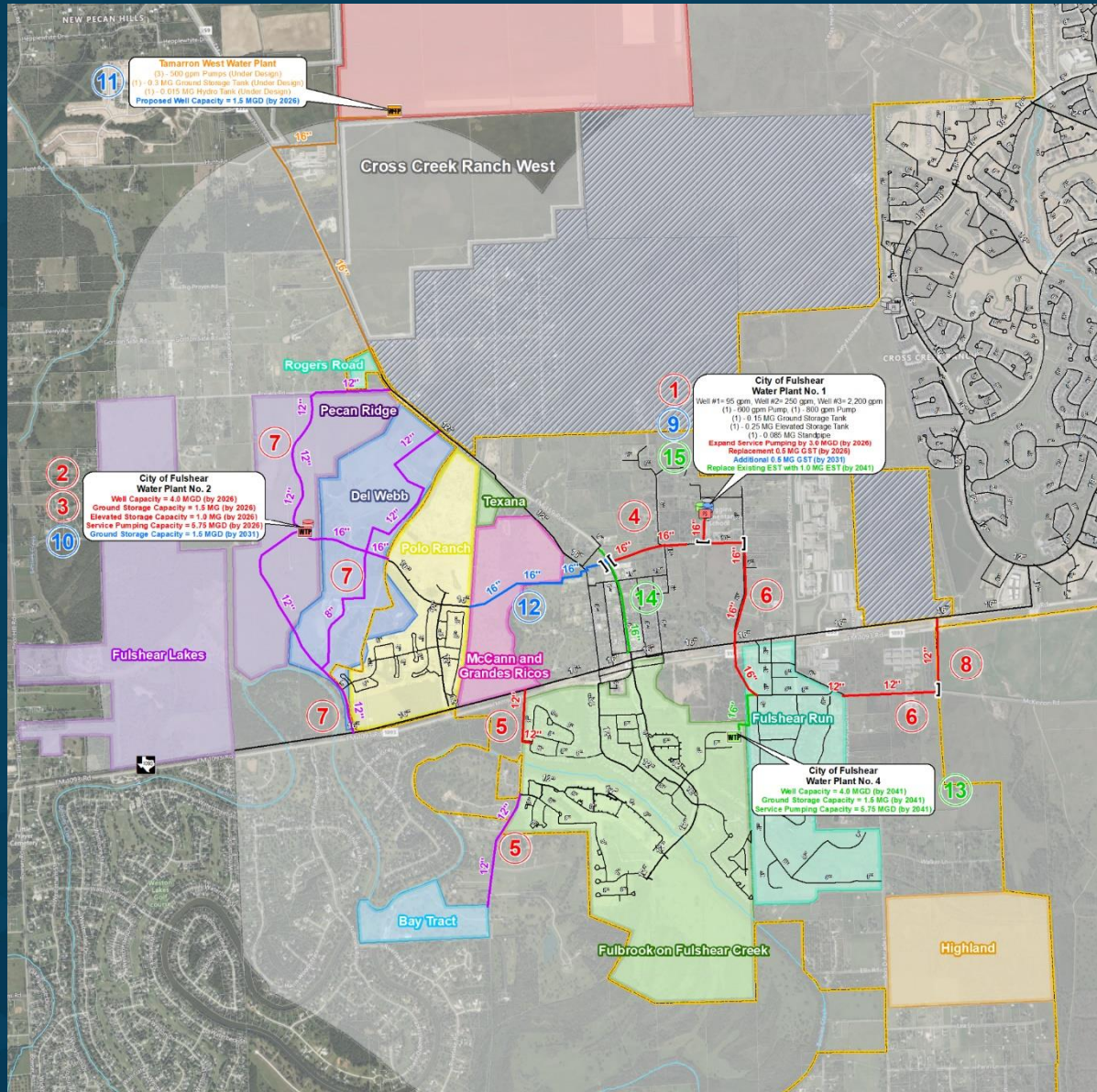
-  Elevated Storage Tank
-  Water Plant
-  Water Line

Under Design Improvements

-  Water Treatment Plant
-  Water Line

Existing Facilities

-  Well
-  Stand Pipe
-  Hydro Tank
-  Ground Storage Tank
-  Elevated Storage Tank
-  Pump Station
-  10" and Smaller Water line
-  12" and Larger Water line
-  Stream
-  Parcel
-  Infill
-  City Limit
-  ETJ Boundary



20-Year Water Capacity CIP

Phase	Project Number	Project Name	Cost (2021 Dollars)
5-Year (by 2026)	1	Downtown COF Water Plant No. 1 - 3.0 MGD Booster Pumping Expansion, 0.5 MG Ground Storage Tank, and 16-inch Water Line	\$ 4,739,200
	2	1.0 MG Elevated Storage Tank	\$ 3,737,500
	3	Water Plant No. 2	\$ 15,013,600
	4	16-inch Huggins Transmission Line	\$ 1,342,200
	5	12-inch James Lane Water Line	\$ 1,158,300
	6	16-inch Transmission Lines from Huggins Drive to McKinnon Road	\$ 2,401,500
	7	12-inch and 16-inch lines through Pecan Ridge and Del Webb	\$ 4,652,500
	8	12-inch Water Line from McKinnon Road to FM 1093	\$ 839,200
	Total 2021 - 2026		\$ 33,884,000
10-Year (by 2031)	9	Downtown COF Water Plant No. 1 Additional 0.5 MG GST	\$ 1,196,000
	10	Water Plant No. 2 Additional 1.5 MG GST	\$ 3,588,000
	11	Tamarron West Water Plant Expansion to 1.5 MGD	\$ 2,242,500
	12	16-inch McCann Water Line	\$ 1,112,600
	Total 2026 - 2031		\$ 8,139,100
20-Year (by 2041)	13	New Water Plant No. 4	\$ 15,758,200
	14	16-inch Downtown FM 359 Water Line	\$ 808,000
	15	Downtown COF Water Plant No. 1 Replacement 1.0 MG EST	\$ 3,737,500
	Total 2031 - 2041		\$ 20,303,700
Total Water CIP			\$ 62,326,800

20-Year Water Capacity CIP

WASTEWATER CAPITAL IMPROVEMENTS PLAN

LEGEND

Proposed 2026 Improvements



Lift Station



Wastewater Treatment Facility



Force main

Proposed 2031 Improvements



Lift Station



Wastewater Line



Force Main

Proposed 2041 Improvements



Lift Station

Under Design Improvements



Wastewater Treatment Facility

Developer Improvements



Lift Station



Wastewater Treatment Facility



Force Main

Existing System



Manhole



Lift Station



Wastewater Treatment Facility

8" and Smaller Wastewater Line

10" and Larger Wastewater Line

8" and Smaller Force Main

10" and Larger Force Main

Stream



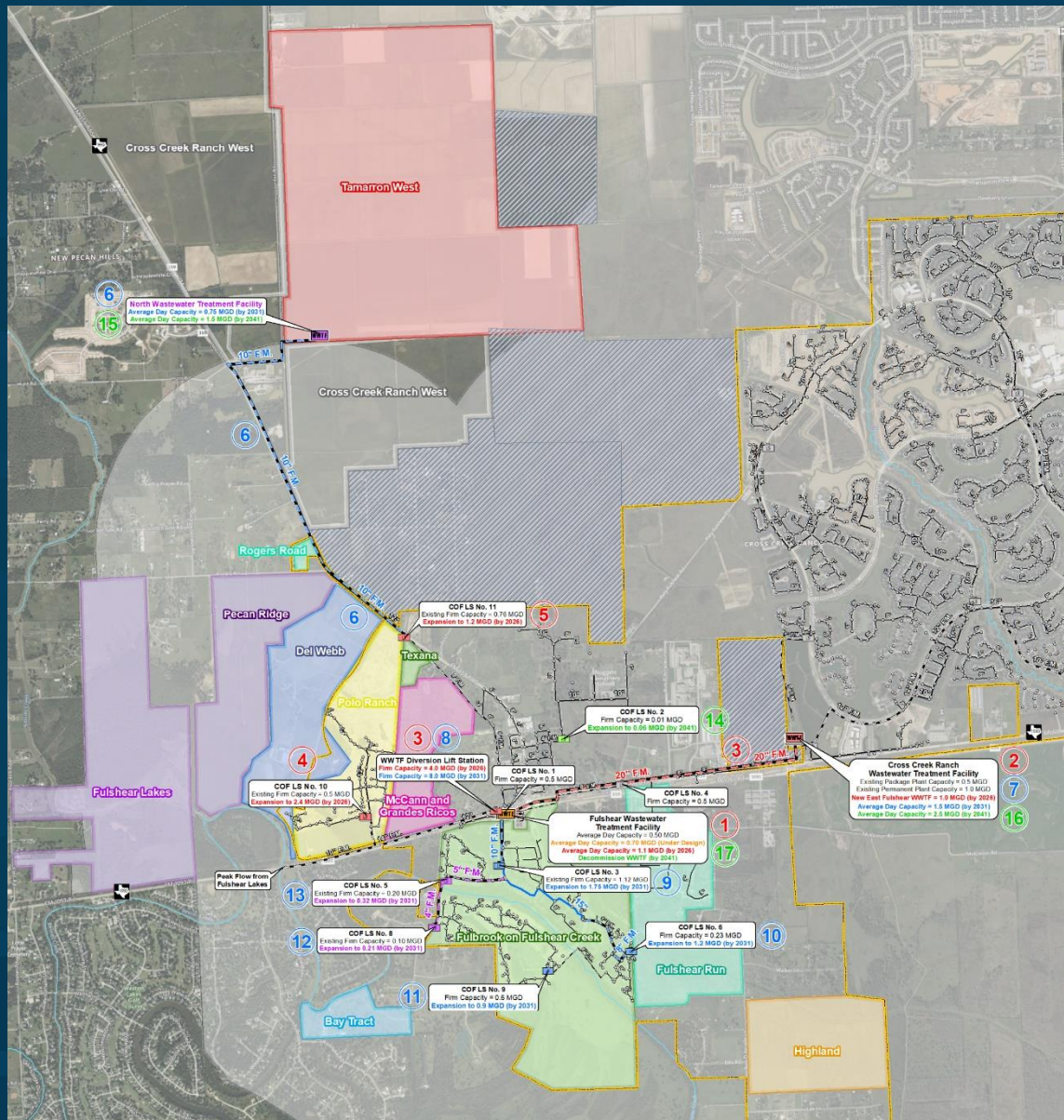
Infill



City Limit



ETJ Boundary



20-Year Wastewater Capacity CIP

Phase	Project Number	Project Name	Cost (2021 Dollars)
5-Year (by 2026)	1	Downtown COF WWTF Capacity Expansion to 1.1 MGD	\$ 1,883,700
	2	New 1.0 MGD East Fulshear WWTF at CCR WWTF Site (Phase I)	\$ 18,687,500
	3	4.0 MGD Downtown COF WWTF Diversion Lift Station and 20-inch Force Main (Phase I)	\$ 8,872,100
	4	COF Lift Station 10 Capacity Expansion to 2.4 MGD	\$ 1,179,300
	5	COF Lift Station 11 Expansion to 1.2 MGD	\$ 661,200
	Total 2021 - 2026		\$ 31,283,800
10-Year (by 2031)	6	0.75 MGD Treatment Capacity at North Fulshear WWTF and 10-inch Force Main from COF Lift Station 11	\$ 16,258,200
	7	0.5 MGD Expansion of East Fulshear WWTF to 1.5 MGD (Phase II)	\$ 9,343,800
	8	Downtown COF WWTF Diversion Lift Station Expansion to 8.0 MGD (Phase II)	\$ 2,445,500
	9	COF Lift Station 3 Expansion to 1.75 MGD and 10-inch Force Main	\$ 1,218,500
	10	COF Lift Station 6 Expansion to 1.2 MGD, 8-inch Force Main, and replacement 15-inch Gravity Main	\$ 3,291,300
	11	COF Lift Station 9 Expansion to 0.9 MGD	\$ 533,000
	12	COF Lift Station 8 expansion to 0.21 MGD and 4-inch Force Main	\$ 383,000
	13	COF Lift Station 5 expansion to 0.32 MGD and 5-inch Force Main	\$ 443,300
	Total 2026 - 2031		\$ 33,916,600
20-Year (by 2041)	14	COF Lift Station 2 Expansion to 0.06 MGD	\$ 174,400
	15	0.75 MGD Expansion of North Fulshear WWTF to 1.5 MGD Capacity (Phase II)	\$ 14,015,700
	16	1.0 MGD Expansion of the East Fulshear WWTF to 2.5 MGD Capacity (Phase III)	\$ 18,687,500
	17	Decommission Downtown COF WWTF	\$ 299,000
	Total 2031 - 2041		\$ 33,176,600
Total Wastewater CIP			\$ 98,377,000

20-Year Wastewater Capacity CIP

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